



# Certificate Programs

UVI Schools or Colleges may offer certificate programs within a particular discipline or multi-disciplinary series of courses that result in the student acquiring knowledge in an additional area beyond their major or minor. These programs consist of degree credit courses that together comprise a body of knowledge. Depending upon the prerequisites for certificate courses, these programs may be a gateway for non-matriculated students to begin their tertiary academic studies. Certificate programs, with credit requirements ranging from 9-20 credits, have stated learning outcomes and are periodically assessed. Successful completion of the certificate programs will be noted on the student's transcript. Below is a list of the current certificate programs.

## ***Applied Computer Science (ACS) Technology***

The Applied Computer Science Technology Certificate provides practical knowledge and experience to ensure success for entry level technology-related employment requiring essential software, hardware, operating systems, and networking skills. ACS Technology is a two-semester, accelerated program that is ideally suited for non-traditional and part-time students: three courses and eight credit hours the first semester; two courses and seven credit hours the second semester. A virtual laboratory allows students to apply ACS Technology concepts in an authentic hands-on environment. Course concepts and the virtual lab can be extended as an optional preparation for relevant, industry-recognized credentials (e.g., CompTIA Network+, Microsoft Certified Professional, Linux LPI Certification). Should a student choose to continue with a two-year or four-year degree, eleven credit hours from the ACS Technology program may be transferred to satisfy elective or required courses.

Students must complete the following 15 credits with a passing grade in each course.

		Credits
CSC 110	Introduction to Programming and Problem Solving	3
CSC 235	ACS Virtual Technology Lab	1
CSC 241	Introduction to Computer Architecture and Systems	4
CSC 243	Digital Communications and Networks	4
CSC 255	Operating System Deployment Best Practices	3

## ***Aquaculture***

The Certificate Program in Aquaculture is a 20-credit specialized program that is ideal for students interested in joining a growing aquaculture industry and for those who are ready for a career transition. It explores biological and technical principles across fields involved with aquaculture production, as well as different types of aquaculture ventures ranging from small-scale family businesses or businesses with fewer people to large operations which usually are vertically integrated (hatchery, grow out, processing, marketing). Theoretical and practical knowledge as well as hands-on operational experience is emphasized, using laboratory and field equipment. Students will be prepared to begin their careers as technicians who may work on private farms, government hatcheries, public aquariums, or to start their own venture in algae, fish, shellfish, or aquatic plant farming. Students are expected to become independent and self-motivated professionals that may apply critical thinking and problem-solving skills. Emphasis on leadership and communication skills will be encouraged, and students may also continue their studies through transfer into an associate or baccalaureate degree program in aquaculture or another related program.

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Required courses:		Credits
AGR 101	Introduction to Agriculture	3
AGR 110	Introduction to Caribbean and Tropical Aquaculture	3
AGR 115	Introduction to Marine and Freshwater Aquaculture Production	3
AGR 203	Farm Management and Planning	4
AGR 221	Aquaculture Techniques	4
AGR 226	Fundamentals of Hatchery Production	3

## ***Biomedical Laboratory Sciences***

Biomedical laboratory scientists are responsible for the technical work in clinical and research laboratories, analysis of biological samples, quality assurance of analytical methods and test results, maintenance of complex technological equipment and development, standardization and adaptation of new methods. The certificate program in biomedical laboratory science is a unique and exciting combination of training in health science and technology to understand and utilize future scientific and technological advances in biomedical laboratory science. Individuals completing the program will be prepared for opportunities in medical laboratories inside and outside hospitals, private companies, academic institutions, and others.

Required core courses:		Credits
BIO 141	General Biology	4
CHE 112	Principles of Chemistry for the Life Sciences	3
CHE 112L	Principles of Chemistry for the Life Sciences Laboratory	1
BIO/CHE 230	Professionalism in Biomedical Science	1
BIO/CHE 241	Methods in Biomedical Science I	4
BIO/CHE 242	Methods in Biomedical Science II	4
CSC/SCI 230	Data Science I	3

## ***Broadcast Communication***

The Broadcast Communication certificate program consists of a series of methods courses which provide students with the body of professional knowledge and skills that prepare them to work effectively with broadcast media both as on-air talent and as station operators. The certificate is specifically for students who wish to enter the broadcasting profession with sufficient background and training to succeed in the business. It is also for students who are studying other majors who wish to perfect their skills in presenting their ideas in public.

Enrollment in individual courses is open to anyone who meets the stated prerequisites. The certificate program is open to students who are already matriculated at UVI or students who have come to UVI solely to pursue this certificate.

The certificate will be awarded to students who complete 18 credits in the courses listed below with a grade of C or better in all.

A. Required core courses:		Credits
COM 205	Broadcast Communication	4
ENG 120	English Composition	3

B. A maximum of 6 credits from the following courses:		Credits
COM 211	Radio Production	3
COM 212	Radio Production	3

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		Credits
COM 213	Radio Production	3
COM 214	Radio Production	3

C. Students will take the remaining credits (to the 18 credit total) from the following:

		Credits
COM 110	Introduction to Communication	3
COM 120	Public Speaking	3
COM 200	Journalism Workshop	2
COM 227	Voice and Diction	3
COM 308	Newswriting for Mass Media 1	3
COM 310	Newswriting for Mass Media 2	3
COM 340	Broadcast Communication 2	4
ENT 205	Innovation and Entrepreneurship	3
MUS 110	Business of Music	3
MUS 125	Beginning Music Recording Workshop	3
MUS 215	Music Mixing Workshop	3
MUS 217	Professional Tools: Digital Recording Techniques	3

Students taking courses for the sole purpose of being awarded the certificate in broadcasting are reminded that certain classes have prerequisites, and taking those classes will require more than 18 credits of course work. This is appropriate for matriculated students seeking a bachelor's degree. Students only seeking a certificate and who want to complete only 18 credits should avoid courses for which prerequisites are required. The following courses have prerequisites:

		Credits
COM 200	Journalism Workshop	2
COM 308	Newswriting for Mass Media 1	3
COM 310	Newswriting for Mass Media 2	3

Students completing the certificate program as part of a degree program can organize their coursework to have the prerequisites completed before beginning the classes that require prerequisites. Note also that some classes can be taken concurrently.

The program will organize these classes so that an NSE student could come in August and complete the certificate in one year. This requires that classes be sequenced and organized to ensure that the right sequence is available every year. Students are encouraged to simultaneously pursue parallel certificates in entrepreneurship or in the business of music and to participate in the 13D competition. The intent is to have certificate recipients skilled in broadcasting PLUS music recording or business operations.

## ***Construction Management***

The Construction Management Certificate provides practical knowledge and experience to ensure success for entry-level construction management - related employment, particularly those requiring essential software, hardware, and practical skills. The Certificate in Construction Management is a two-semester accelerated program that is ideally suited for non-traditional and part-time students. Students will complete the first two courses and six credit hours the first semester; two courses and six credit hours the second semester and one course with 3 credits each summer. Students will learn principles and techniques of construction, materials and building equipment, manual and computer-aided drafting, building contracting processes, and cost estimating and scheduling using the latest software. It is intended to prepare students for positions such as construction supervisor, estimator,

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scheduler, or project management. Should a student choose to continue with a two-year Associate degree in Construction Management, credit hours may be transferred to satisfy electives or required courses.

Students must complete the following 18 credits with a minimum passing grade of a C in each course.

Required courses:		Credits
CMT 115	Construction Material and Methods	3
CMT 117	Construction Print Reading and Specification	3
CMT 120	Intro to Computer Aided Design	3
CMT 130	Construction Cost Estimating and Project Scheduling	3
CMT 140	Construction Safety Processes and Procedures	3
CMT 150	Construction (Project) Planning and Scheduling	3

Students in the School of Business pursuing a Certificate in Construction Management are required to earn a minimum grade of "C" in all required courses in Construction Management and their area of concentration.

## ***Data Science***

The Data Science certificate program enables students with a degree or equivalent work experience to add data science to their skill set offering, making them more valuable to their current employer or more attractive to potential employers. The certificate provides practical knowledge and hands-on experience to prepare for entry-level data science or analytics employment. The certificate prepares students to support an analytics team in identifying, building, and evaluating models. The courses include curriculum developed with practitioners, many of whom offer hands-on training opportunities to ensure students learn skills that support workforce needs.

A. Required core data science courses:		Credits
CSC/SCI 230	Data Science I	3
CSC/IST/SCI 435	Data Science II	3

B. The student must choose one of the following statistics courses:		Credits
DSC 325	Statistics for Management Decisions	3
MAT 235	Introductory Statistics with Applications	4
MAT 245	Statistics for the Life Sciences	4

C. A final data science project is completed in one of the following courses. This course is to be taken during the last semester. \*

		Credits
---- 495	Directed Independent Research	3
BUS 499	Independent Study	3
MAT 499	Independent Study	3

\* The final data science project completed must be approved by faculty with respective department chairs to ensure projects relate to data science.

## ***Entrepreneurship***

The Certificate in Entrepreneurship is designed to guide participants through the critical stages of the startup cycle while fostering an entrepreneurial mindset applicable to any career. Whether your goal is to launch a business, drive innovation within an organization, or enhance your creative problem-solving skills, this program equips you with the tools to thrive in today's dynamic business landscape. Entrepreneurial skills, such as innovative thinking and problem-solving, are highly valued across industries. According to the National Association of Colleges and Employers (2022), 86% of employers seek these skills in graduates, regardless of major. This nine-credit program spans three progressive courses, each focusing on a key phase of venture creation.

Required courses		Credits
ENT 205	Introduction to Entrepreneurship and Innovation	3
ENT 300	Human-Centered Design Thinking	3
ENT 301	Entrepreneurial Venture Creation	3

### Course Progression

ENT 205 is a prerequisite for ENT 300.

ENT 300 is a prerequisite for ENT 301.

With its focused curriculum, hands-on learning opportunities, and alignment with industry demands, the Certificate in Entrepreneurship prepares you to excel as an innovator, entrepreneur, or changemaker in any field.

## ***Forestry and Nursery Management***

Forestry and Nursery Management is the profession of sustainably managing forest lands to meet society's demands for wood, clean water, wildlife habitat, recreation, conservation of forest flora and fauna, and climate amelioration. This certificate is designed to introduce students to the fundamentals of forest and nursery management. Students will be exposed to the historical and economic significance of forestry, different forest ecosystems in the Virgin Islands, Caribbean and the wider world, planning, design and management approaches for trees, and the regulatory environments and social frameworks in which forestry is practiced. The certificate will also cover nursery management to include the principles of nursery crop culture, site selection, design and development, the structures and equipment required for efficient nursery operation and the principles of advertising and marketing of nursery products. A total of 18 to 19 credit hours is required for completion of the Certificate in Forestry and Nursery Management. All courses will be administered and taught through the School of Agriculture. Most of the required courses will consist of a lab component designed to reinforce knowledge communicated in the classroom, and provide the experiential skills necessary for completion of the program. This program should be completed in two semesters through a combination of face-to-face, hybrid, and online classes.

A. Required courses:		Credits
AGR 101	Introduction to Agriculture	3
AGR 120	Plant Identification	3
AGR 230	Integrated Pest Management	3
AGR 235	Plant Propagation	3
AGR 250	Forest and Nursery Management	3

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B. One additional course from the following:		Credits
AGR 140	Introduction to Soil Science	4
AGR 203	Farm Management and Planning	4
AGR 225	Tropical Agroecology	3

## **General Agriculture**

The Certificate in General Agriculture is designed to prepare students for employment in a variety of agriculture-related positions including ag sales, farm management, supplies and service, and production. Courses cover topics such as Introduction to Agriculture, Livestock Production, and Farm Management and Planning. Students will gain an understanding of livestock production, plants, soils, biotechnology, natural resources, and sustainable agriculture as it relates to the global food industry. They will be able to identify the principles of animal science and apply these principles to efficient livestock production; analyze, diagnose, and make decisions related to management of a farm business; describe plant structure, growth, and development and the principles and methods of growing various ornamental, fruit, vegetable, and agronomic crops; apply the basic concepts, principles, and components including anticipation, prevention, observation, and intervention involved in integrated pest management in fields and greenhouses; understand and apply the fundamentals of aquaculture - methods and techniques used in the aquaculture of fresh and saltwater fish species. An important component of the course is the participation in experiential learning (labs) that integrates knowledge and theory learned in the classroom with practical application and skills development in a professional setting. A total of 16 to 17 credit hours is required for completion of the Certificate in General Agriculture.

A. Required courses:		Credits
AGR 101	Introduction to Agriculture	3
AGR 130	General Horticulture	3
AGR 203	Farm Management and Planning	4
AGR 232	Livestock Production	3

B. One additional course from the following:		Credits
AGR 115	Introduction to Marine and Freshwater Aquaculture Production	3
AGR 202	Agronomy	4
		Credits

AGR 225	Tropical Agroecology	3
AGR 230	Integrated Pest Management	3

## **Horticulture**

The Certificate in Horticulture at the University of the Virgin Islands (UVI) prepares students with the knowledge and skills for a successful career in the horticulture industry. The coursework, in addition to providing a solid science foundation, is specifically designed to provide students with critical hands-on learning experience, both in the laboratory and the field. A total of 17 credit hours is required for completion of the Certificate in Horticulture.

Courses such as Soil Science, Integrated Pest Management, Farm Management and Planning, and Plant Propagation are integral components of the program. On completion of this program students have the opportunity or option to transfer to an AAS program in areas such as Horticulture, General Agriculture, and Agribusiness. Students are not required to enroll in general

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courses because this program is geared mainly for non-traditional students who require certification whilst on the job or students who intend to pursue an AAS in horticulture or agriculture. Field exercises and labs will be major components of the program.

Students will be expected to complete four required courses and one elective course, a total of 14 and three credit hours, respectively. All the required courses will be available for class delivery within the School of Agriculture. All courses will consist of a lab component designed to reinforce knowledge communicated in the classroom and provide the experiential skills necessary for completion of the program. The Certificate should be completed in two semesters or one year through a combination of face-to-face, hybrid, and online classes.

A. Required courses		Credits
AGR 101	Introduction to Agriculture	3
AGR 130	General Horticulture	3
AGR 140	Introduction to Soil Science	4
AGR 203	Farm Management and Planning	4

B. One additional course from the following		Credits
AGR 125	Plant Science	3
AGR 225	Tropical Agroecology	3
AGR 230	Integrated Pest Management	3

## ***Inclusive Early Childhood Education (IECE)***

The unique nature of working with young children implies that professionals develop the skills necessary for working with and collaborating effectively with families and other professionals. Additionally, the fact that not all children develop at the same rate and children with developmental delays and disabilities are included in typical early childhood classes requires that anyone who works with young children have an understanding of an even wider range of development and learning. As a result, this certificate program was created to give participants a basic knowledge, understanding and skills to develop environments and learning experiences that support the physical, social, cognitive and emotional development of infants, toddlers, preschoolers and primary aged children, which enhance and integrate physical, cognitive, communication, and social/emotional development for all children ages birth through eight with diversified abilities.

## ***Mathematics Content for Elementary Teachers***

The certificate in Mathematics Content for Elementary Teachers was created to give participants an in-depth understanding of the content knowledge, mathematical practices, content pedagogy, and mathematical learning environment necessary to teach elementary mathematics and collaborate effectively with teachers and other professionals. The certificate program enables practicing and prospective elementary teachers to engage in long-term, mathematics-specific professional development that emphasizes fundamental concepts and structures of elementary mathematics in numbers and operations, algebra and functions, geometry and measurement, and statistics and probability. Specifically, this certificate answers a call from numerous expert bodies that suggest elementary mathematics teachers complete a minimum number of courses (three to four) focused on mathematics content.

The Mathematics Content for Elementary Teachers Certificate requires 12 credits including three required courses on numbers and operations, geometry and measurement, and algebra and functions and one elective course on probability and statistics or rational numbers and proportional reasoning.

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Required courses: Credits

MAT 310	Numbers and Operations for Elementary Teachers	3
MAT 311	Geometry and Measurement for Elementary Teachers	3
MAT 312	Algebra and Functions for Elementary Teachers	3

Students must choose one of the following courses: Credits

MAT 313	Statistics and Probability for Elementary Teachers	3
MAT 314	Rational Numbers and Proportional Reasoning for Elementary Teachers	3

## ***Music Industry***

The Music industry Certificate program is designed to provide interested parties with training that will enable them to become successful entrepreneurs in the music business as audio engineers or music business entrepreneurs. A student who successfully earns a music industry certificate will have acquired the ability to create and maintain a successful music business, through the study of key music marketing principles and practices; patent, copyright, and trade law secrets which include patent protection for software and business methods. Students of the audio engineering track will be exposed to industry standards for digital audio recording methods, mixing equalization, and dynamic processing that includes acoustics for both studio and live sound installations. Participants will learn how to record and mix audio and audio-visual productions, and will learn how to produce distributable multi-channel surround sound products through mastering, mixing, and encoding.

The Music Industry Certificate program provides interested students with the opportunity to become proficient through one of two distinct music industry study tracks: audio engineering or music business.

The Music Industry Certificate program requires 12 credit hours of instruction (including the necessary prerequisite course MUS 110). Program participants will take the required MUS 110 Business of Music course followed by any three courses in one of the two tracks outlined within the certificate program.

A. Required music industry course Credits

MUS 110	Business of Music	3
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B. Three courses chosen from one of the two tracks below:

Audio Engineering Track Credits

MUS 125	Beginning Music Recording Workshop	3
MUS 215	Music Mixing Workshop (3 credits per semester)	6
MUS 217	Professional Tools: Digital Recording Techniques (3 credits per semester)	6
MUS 250	Music Recoding Theory and Techniques	6

Music Business Track Credits

MUS 252	Music Industry Marketing Principles and Applications	3
MUS 254	Intellectual Property Rights	3
MUS 315	Music Economics and Global Business	3



## ***Professional Spanish***

This certificate program is designed for students who wish to work in sectors such as the medical field, law enforcement, first responders, hospitality and local businesses. Professionals within these communities repeatedly highlight the need for employees who are able to communicate with the Spanish-speaking population, either tourists coming to this area for recreational purposes or the Spanish-speakers who live in the U.S. Virgin Islands on a permanent basis. This program will assist students in acquiring the second language and intercultural skills needed to work with these populations, and to better meet the needs of their future employers.

## ***Psychology with Concentration in Human Development***

This certificate program promotes a greater understanding of human developmental psychology. It may be especially useful to those who provide services to people and organizations across a wide spectrum of developmental levels from preschool to elderly populations.

## ***Teaching English as a Second Language (TESL)***

This certificate program consists of a series of methods courses which provide students with the body of professional and pedagogical knowledge, skills, and dispositions that prepare them to work effectively with learners in elementary and secondary classrooms, whose first language is not English. Additionally, these courses provide training in materials development, assessment and evaluation and cross-cultural communication.

Enrollment in individual courses is open to anyone who meets the stated prerequisites. However, the certificate program is open only to a) seniors at the University of the Virgin Islands with a GPA of 2.5 or higher completing a teacher preparation program or b) in-service teachers holding at least a baccalaureate degree or equivalent from an accredited institution.

ESL Courses	Credits
EDU 320 The Use of Computers in ESL Curriculum and Instruction	3
EDU 324 Second Language Acquisition	3
EDU 326 The Reading Process for Second Language Learners	3
EDU 330 Linguistics for ESL Teachers	3
	Credits
EDU 335 Curriculum Development and Language Learning in the ESL Classroom	3
EDU 340 Classroom-based Assessment for the ESL Classroom	3
	Total
	18

More details about the certificate programs are available on the UVI website.